



# NEWS

*from the U.S. Fish and Wildlife Service*

January 16, 1998

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## NEW TACTICS, RESEARCH HOLD POTENTIAL TO FEND OFF ALIEN SPECIES INVASIONS

The sea lamprey. The round goby. The zebra mussel. These and other exotic aquatic species are notorious around the Great Lakes and the Midwest for their ability to devour or crowd out native wildlife--and inflict millions of dollars of economic damage while they're at it. Exotic species, which are most often introduced into American waters accidentally after hitching a ride on ocean-going freighters, have encountered few obstacles as they expanded their range to infest all of the suitable habitat available--until recently.

"New research is confirming a long-held suspicion--that exchanging freshwater ballast for salt water on the high seas between ports kills a great majority of these species before they reach the United States," said U.S. Fish and Wildlife Service Director Jamie Rappaport Clark.

There is also better documentation of the effects of voyage length on the survival rates of species in ballast water, and the origins of the most prominent invasive species, by region. This information is crucial as policy-makers develop a strategy to cope with this threat. Already, ships entering the St. Lawrence Seaway from foreign ports must exchange their ballast before passing through the first U.S. lock and steaming into the Great Lakes. An increasing number of ports around the world are imposing similar requirements.

Interstate transport of exotic species is not as easily regulated as international trade and many aquatic species have moved around the country by clinging to the hulls or surviving in the bilges and livewells of trailered boats. Although zebra mussels have yet to be discovered in waters west of the Rocky Mountains, live mussels have been found on 11 boats at agricultural stations in California since 1993. With the vast majority of east-west interstate traffic occurring on just 10 highways, the U.S. Fish and Wildlife Service and a number of state agencies believe encouraging drivers towing trailered boats to voluntarily allow inspection for mussels holds promise for greatly reducing the westward spread of this species.

In addition to recent progress in controlling the introduction and spread of these pests, there has been progress in reducing and coping with existing populations.

"Invasive species tend to be adaptive, aggressive, and resilient. Once they are established, we are unlikely to ever completely eradicate them," said Clark. "However, our ability to prevent their spread and protect local wildlife is becoming more sophisticated."

Sea lampreys began migrating into the Great Lakes from the Atlantic Ocean with the completion of the Willard Canal in 1929 and their population grew rapidly while that of their favorite prey--lake trout--plummeted. Today, U.S. and Canadian fisheries agencies employ a variety of methods, including special barriers that prevent lampreys from reaching their spawning grounds, lampricides, and the release of sterile males to prevent reproduction. Lamprey populations have fallen to 10 percent of their historic high and the lake trout populations in Lake Superior are considered fully restored while efforts in Lake Huron and Michigan continue to make progress.

Round gobies, bottom-dwelling fish from the Black Sea, are outcompeting native species in Calumet Harbor in Chicago. The Fish and Wildlife Service recently captured more than 1,000 gobies and is testing them for their susceptibility to various fish toxicants. In addition, the U.S. Army Corps of Engineers is erecting an electric barrier at a strategic chokepoint in the Chicago Sanitary and Ship Canal. This barrier will charge the water with a current that should be sufficient to deter gobies from passing through the canal and following the zebra mussel out into the Mississippi River basin.

Zebra mussels, which feed by filtering water, can attach themselves to almost any hard surface. They are infamous for clogging intake pipes of industrial facilities and municipal water systems, but they also cling to and smother native clams, mussels, and crayfish. A coalition of Federal and state fisheries managers is working toward establishing refuges for native mussels at fish hatcheries and in uninfested rivers. Scientists believe this will preserve viable populations of native mussels while the search continues for methods to destroy the zebra mussel.

"The fight against aquatic nuisance species is a long way from over," said Clark. "But there are signs that the most important battles can be won."

The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting, and enhancing fish and wildlife and their habitats for the continuing benefit of the American people. The Service manages 511 national wildlife refuges covering 92 million acres, as well as 67 national fish hatcheries.

The agency enforces Federal wildlife laws, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, administers the Endangered Species Act, and helps foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes Federal excise taxes on fishing and hunting equipment to state wildlife agencies. This program is a cornerstone of the Nation's wildlife management efforts, funding fish and wildlife restoration, boating access, hunter education, shooting ranges, and related projects across America.

**For More Information**

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